

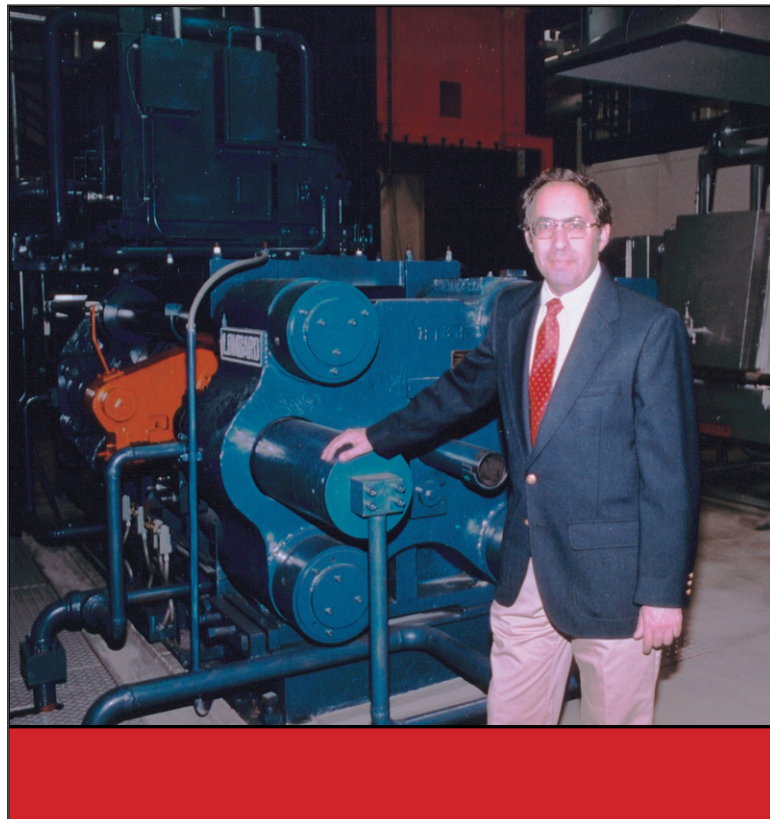


# Air Force Research Laboratory|AFRL

*Science and Technology for Tomorrow's Aerospace Forces*

## **Success Story**

### **SCIENTIST EARNS INTERNATIONAL CONFERENCE LIFETIME ACHIEVEMENT AWARD**



Dr. Lee Semiatin, a senior scientist in the Materials and Manufacturing Directorate's Metals, Ceramics, and Nondestructive Evaluation Division, recently received a Lifetime Achievement Award from the Thermec International Conference on Processing & Manufacturing of Advanced Materials. The Thermec International Conference presents this award every three years. Dr. Semiatin received the Lifetime Achievement Award for outstanding contributions in advancing the understanding of the thermomechanical processing of titanium and titanium aluminide alloys.



Air Force Research Laboratory  
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Materials and Manufacturing  
Awards and Recognition

## Accomplishment

Dr. Semiatin's leadership and technical contributions led to improvements in a number of existing processes and the successful development of several new processes for high-temperature alloys. His selection for the award recognizes both individual achievement and the scientific contributions of AFRL, enhances the directorate's reputation as a world leader in materials research and development, and highlights the directorate's efforts to support Air Force operational requirements.

## Background

Dr. Semiatin earned his undergraduate degree in engineering mechanics from Johns Hopkins University and his master's and doctorate degrees in metallurgy and materials science from Carnegie-Mellon University. He worked for the Battelle Memorial Institute from 1978 to 1991, conducting and directing programs for a wide range of government and industry clients. A large portion of his government-sponsored work was for the Materials and Manufacturing Directorate and the Air Force Office of Scientific Research (AFOSR), including basic studies on hot working of aerospace alloys.

Dr. Semiatin joined the directorate's Metals, Ceramics, and Nondestructive Evaluation Division as a senior scientist in 1991 and was appointed research leader of the division's Processing Science Group. Under his direction, the group conducted extensive research in five principal areas: advanced metallic and intermetallic alloys; metal and ceramic matrix composites; conventional titanium, nickel, and aluminum alloys; novel processes; and the development of advanced models to describe material behavior under processing conditions.

This research resulted in the successful development of various new forging, extrusion, and rapid heat treatment processes for use in aerospace parts production. As the group research leader, Dr. Semiatin also consults regularly with manufacturers on processing concerns impacting major Air Force systems. Dr. Semiatin's research efforts over the past 25 years have substantially expanded the knowledge of not only titanium and titanium aluminide alloys, but also the processing of other difficult-to-process materials such as nickel-based superalloys and refractory alloys.

AFOSR recognized Dr. Semiatin and the Processing Science Group as a Star Team in 1992, 1995, and 2000. He received the Air Force Basic Research Award in 1995 and was elected a Fellow of the American Society for Metals International in 1992 and AFRL in 1993. Dr. Semiatin is also a member of the Minerals, Metals, and Materials Society and an honorary member of Alpha Sigma Mu.

## Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (02-ML-05)